

1. A method comprising:

receiving a data frame by an integrated network switch; and

prioritizing switching of the data frame by the integrated network switch to an output port according to a user-defined policy and based on a user-selected attribute of the data frame.

- 2. The method of claim 1, wherein the integrated network switch includes a switching module configured for identifying a presence of an output port for each data frame based on at least one of a media access control (MAC) source address and a (MAC) destination address, the method further comprising configuring by a host processor, coupled to the network switch, the switching module to switch the data frame according to the user-defined policy based on the corresponding user-selected attribute.
- 3. The method of claim 2, wherein the step of configuring the switching module includes setting the user-selected attribute to a prescribed network switch port.
- 4. The method of claim 3, wherein the prioritizing step includes switching the received data frame according to the user-defined policy based on the data frame having been received on the prescribed network switch port.
- 5. The method of claim 2, wherein the step of configuring the switching module includes setting the user-selected attribute to at least one of a prescribed source address and a prescribed destination address.
- 6. The method of claim 5, wherein the setting step includes setting the user selected attribute to at least one of a prescribed MAC address and a prescribed Internet Protocol (IP) address.
- 7. The method of claim 6, wherein the prioritizing step includes switching the received data frame according to the user-defined policy based on the data frame having the at least one prescribed address.

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8. The method of claim 2, wherein the integrated network switch includes a plurality of network switch ports, the method further comprising:

detecting the user-selected attribute within the data frame by one of the network switch ports having received the data frame; and

notifying by the one network switch port the detected presence of the user-selected attribute to the switching module, the switching module in response switching the data frame according to the user-defined policy.

- 9. The method of claim 8, further comprising configuring, by the host processor, the one network switch port for detection of the user-selected attribute.
- 10. The method of claim 9, wherein the step of configuring the one network switch port includes configuring the one network switch port for detection of a prescribed data flow.
- 11. The method of claim 1, wherein the step of switching the data frame includes switching the data frame independent of priority information within the data frame.
 - 12. A network switching system comprising: an integrated network switch including:
- (1) a plurality of network switch ports, each network switch port including a port filter configured for determining a presence of a user-selected attribute in a received layer 2 type data frame and outputting a signal indicating the determined presence of the user-selected attribute for generation of a switching decision, and
- (2) a switching module configured for generating the switching decision for the layer 2 type data frame based on the determined presence of the corresponding user-selected attribute and based on a corresponding user-defined switching policy; and
- a host processor configured for programming the port filter with the user-selected attribute and the switching module with the corresponding user-defined switching policy.
- 13. The system of claim 12, wherein the port filter is configured for determining the presence of the user-selected attribute independent of a presence of a priority tag within the received layer 2 type data frame.

- 14. The system of claim 13, wherein the host processor programs the port filter for identifying as the user-selected attribute at least one of a prescribed layer 2 source address, a prescribed layer 3 source address, a prescribed layer 2 destination address, and a prescribed layer 3 destination address.
- 15. The system of claim 12, wherein the integrated network switch further includes for each network switch port at least two output queues having respective priorities, the switching module identifying a selected one of the output queues for outputting the layer 2 type data frame based on the user-defined switching policy.
- 16. The system of claim 12, wherein the host processor programs the port filter for identifying, as the user-selected attribute, information within the layer 2 type data frame that specifies a prescribed data flow.
- 17. The system of claim 12, wherein the switching module includes priority registers, each priority register configured for mapping the received layer 2 type data frame of a corresponding network switch port to a switch priority value based on the user-defined switching policy, the switching module generating the switching decision for the layer 2 type data frame in accordance with the switch priority value.